

MARKET KEY FIGURES, CHALLENGES  
& PERSPECTIVES OF

# WORLDWIDE PACKAGING



(\*) The new name of EMBALLAGE & MANUTENTION exhibitions

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## The worldwide packaging market value heading for 1,000 billion dollars in 2023

The world packaging market amounted to **US\$851 billion in 2017**, an increase of 2.8% compared to 2016 at constant prices, according to Smithers Pira, including US\$52.72 billion for industrial packaging.

It is set to reach **US\$876 billion in 2018**, based on annual growth of 2.9%, could reach US\$980 billion in 2022 and \$1,000 billion in 2023, slightly down on the previous forecast which had the 1,000-billion-dollar bar crossed in 2020. By 2028, a further US\$150 billion would be added to market value.

Based on a world population of 7.5 billion in 2016, each of them consumed equivalent of \$115 of packaging per year, but consumption is unequally distributed around the world.

In 2016, Asia was the largest market with 42.1% of world consumption, ahead of North America with 24.3% and Western Europe with 18.4%. The economies of Eastern Europe, Central and South America, the Middle East and Africa represent 15.2% of this consumption.

Asia displays the highest growth rate, driven by China and India.

Asia displays the highest growth rate, driven by China and India. China is set to account for nearly 48% of the growth in the consumption of packaging worldwide in 2022.

<sup>1</sup> *The Future of Global Packaging to 2022, Smithers Pira*

<https://www.smitherspira.com/resources/2018/february/the-future-of-packaging-trends>

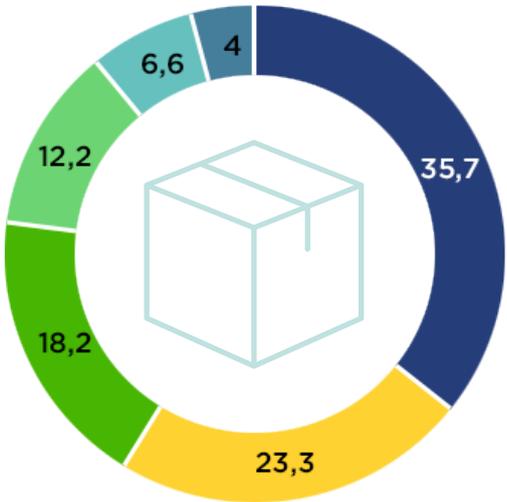
<sup>2</sup> *The Future of Packaging – Long-term Strategic Forecasts to 2028, Smithers Pira*

# BEYOND CULTURAL PREFERENCES, THE CHOICE OF MATERIALS DEPENDS ON USE



Consequently, corrugated cardboard benefits from the boom in online shopping, flexible plastic materials replace rigid plastic to offer lightweight alternatives and refill pouches, glass remains the privilege of luxury goods and tradition, and metal cans adapt to our mobility.

World packaging market by material by percentage in 2016.



- 35,7% Cardboard
- 23,3% Flexible materials
- 18,2% Rigid plastic
- 12,2% Metal
- 6,6% Glass
- 4% Other



Source Smithers Pira



Paper/cardboard remains the most represented material with 35.7% of worldwide consumption in 2016, followed by flexible packaging with 23.3%, rigid plastic with 18.2%, metal with 12.2% and glass with 6.6%.

Worldwide demand for **corrugated cardboard packaging** was worth an estimated US\$245 billion in 2017, amounting to 143 million tonnes. These figures could rise to US\$300 billion and 170 million tonnes in 2023 with a compound annual growth rate (CAGR) of 3.4%. E-commerce, where requirements for packaging estimated at \$28 billion in 2017 should more than double to 2023, uses corrugated cardboard for 75% of its needs, although its dimensions will be required to diminish in the interests of easier filling, opening, return and to reduce shipping weight.

**Flat cardboard packaging** will have to deal with competition from new, simpler pack formats such as stand-up resealable bags in the case of primary packaging or from stretch film in the case of secondary packaging. The decline in sales of tobacco and cigarettes, high consumers of flat cardboard packets, should nonetheless be compensated by growth in luxury goods and pharmaceuticals.

The world market for **paper and/or plastic based flexible packaging** was worth US\$230 billion in 2017 and should experience the highest growth rate between now and 2022, at 4.3% per year to reach US\$283 billion. In terms of volume, this represents 27.4 million tonnes in 2017 and 33.5 million tonnes in 2022 with a CAGR of 4.1%. Driven by its light weight and demand for smaller format packaging, flexible plastic - accounting for two thirds of this market - will experience higher growth than flexible and layered paper. In specific terms, the high-barrier film market estimated at US\$9 billion and 1.86 million tonnes in 2016 is set to reach US\$11.32 billion and 2.23 million tonnes in 2021 with a CAGR of 4.7%. Food made up three quarters

of the flexible packaging market in 2016, while non-food comprises medicine, cosmetics and hygiene.

Worldwide consumption of **rigid plastic packaging**, estimated at US\$166 billion in 2017, is set to rise to US\$200 billion in 2022. This equates to 52.9 million tonnes in 2017 and annual growth of 3.7% for nine years to reach 63.4 million tonnes. Asia is already the biggest consumer of rigid plastic packaging with 31.4% in 2017 and should continue to grow at an annual rate of 5.8% for the five following years. North America accounts for 22.7% and Western Europe 20% of the world market. Food is the main user market, consuming 37% of rigid plastic packaging in 2017. The healthcare sector should nonetheless display the largest CAGR ahead of food, drink and cosmetics.

Worldwide demand for **metal packaging** is estimated at US\$105 billion in 2018. Modest growth of 1.6% per year would enable it to reach US\$114 billion in 2023. This industry, following the example of France, is today focussing on seeking alternative solutions for BPA free coatings.

The **glass packaging** market is valued by different sources at between US\$57.2 billion in 2017 and US\$58.98 billion in 2018. Growth forecasts vary between 3.76% and 4.18% to reach US\$66.724 billion or US\$73.1 billion in 2023. Here too, demand is chiefly driven by the Asian market, China and India, and by healthcare and alcoholic drinks markets

<sup>3</sup> *The Future of Corrugated Packaging to 2023, Smithers Pira*

<sup>4</sup> *The Future of Rigid Plastic Packaging to 2022 de Smithers Pira*

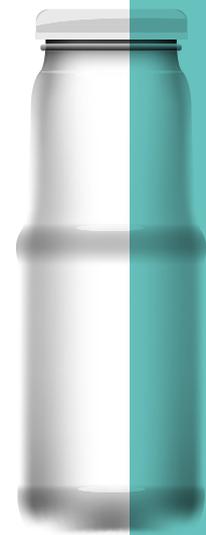
<sup>5</sup> *Source: Smithers Pira*

<sup>6</sup> *Source: Mondor Intelligence*

<sup>7</sup> *Source: Visiongain*

<sup>8</sup> *Source: ResearchAndMarkets.com*

<sup>9</sup> *Source: Mondor Intelligence*



The packaging market is driven by several growth levers: the worldwide urban shift of populations, estimated at 3.9 billion in 2014 and forecast at 6.3 billion in 2050, product availability, the trend of traditional markets moving towards the retailing of pre-packed products, particularly in the food segment, and the diversification of the retail landscape.

## FOOD: NO.1 USER MARKET FOR PACKAGING WORLDWIDE

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As a consequence, the **food packaging**<sup>10</sup> market is estimated at US\$273.9 billion in 2017 and should reach \$356.7 billion in 2023 with average annual growth of 4.5%.



**Cosmetics packaging**, valued at \$29.6 billion in 2017, displays a future CAGR of 4.16%, reaching \$31.75 billion in 2023.<sup>11</sup>

**Pharmaceutical packaging** meanwhile, clocking in<sup>11</sup> at US\$70.16 billion in 2017, forecasts a CAGR of 8.75%, reaching US\$149.25 billion in 2026.



In 2016, **luxury goods packaging** amounted<sup>12</sup> to US\$13.8 billion, a 2.9% increase in 2015, and is forecast to reach US\$15.9 billion in 2020.

**“Green” packaging** was valued at US\$132 billion in 2015. Its 5.41% average growth would take it to \$207 billion in 2020.<sup>13</sup>

Among the industry innovations, the world market for **active and smart packaging** is valued at US\$5.3 billion in 2017 and should reach 7.8 billion in 2021 with average annual growth of 8%.

The active packaging market, which is more mature, benefits from attractive technological development opportunities, while the smart packaging market has substantial room for expansion. It must be said that printed electronics, cloud computing and Internet are today the new frontiers for packaging manufacturers. An increasing amount of technology exists to acquire information, store it, check the authenticity of products or manufacturing conditions, or to convey messages to consumers and stakeholders, thanks to smart packaging



## PACKAGING ADAPTING TO LIFE PATTERNS

In addition to eco-design and reduction at source of packaging waste, and the premiumisation of products via that of packaging, the main trends driving the world packaging market are:

- The development of materials of renewable natural origin and biodegradable materials,
- The deployment of recycling specifically for plastic and de-inked paper;
- The optimisation of packaging for e-commerce;
- Increasing connectivity with consumers and data which can be leveraged for individual promotion purposes;
- Digital printing and customisation of packaging for promotional campaigns;
- The involvement of consumers in the fight against counterfeit through smart packaging which enables them to verify the products they buy;
- An “open doors” company strategy using packaging, portals and promises in an ethical perspective of truth and transparency;
- Packaging suited to food and drink products

### Market value estimations for packaging in 2020.

<sup>10</sup> Source: <https://www.aarkstore.com/paper-packaging/968474/food-packaging-market-global-industry-trends-share-size-growth-opportunity-forecast-2018-2023>

<sup>11</sup> Source : Research And Markets

<sup>12</sup> Source : Smithers Pira

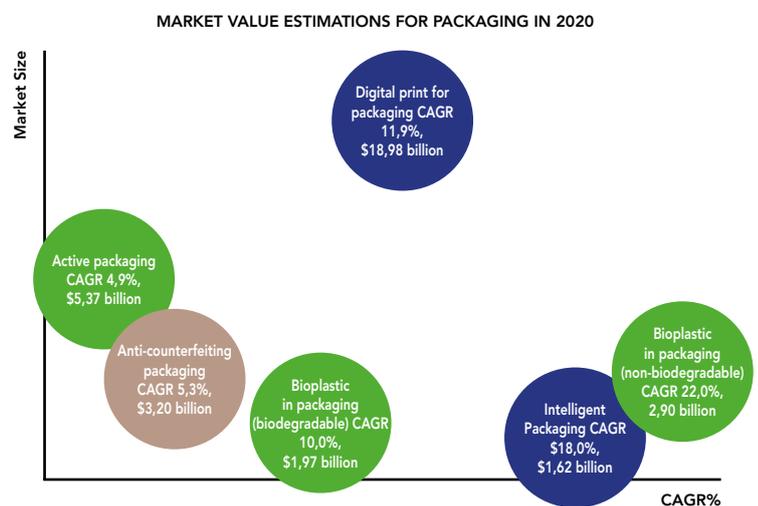
<sup>13</sup> Source : Green packaging market Allied Market Research



heralding healthy, balanced and even digitalised diets;

- A “need to know” design of labels and packaging to fill the gap between not enough and too much essential information in order that consumers can make educated and trusting purchasing decisions;
- Adapting packaging to local specificities.

This has led Smithers Pira predict this overall evolution for packaging to 2020.



Source Smithers Pira

## PHARMACEUTICAL SECTOR: A NEW LEASE OF LIFE FOR PACKAGING MACHINERY

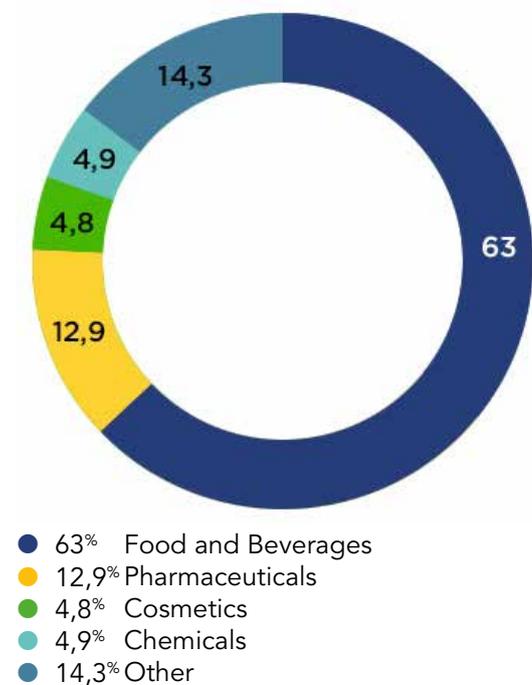
Depending on sources, **the world packaging machinery market** was worth more than US\$30 billion<sup>14</sup> in 2017 and should display average annual growth of 2.8% up until 2021, or, alternatively was worth US\$39.647 billion<sup>15</sup> in 2016 and will experience a CAGR of 6.7% to reach US\$62.063 billion in 2023.

According to PMMI, Asia and the Pacific are the largest geographical markets, clocking in at more than US\$13.4 billion (36.3%) which should rise by 3% per year to reach US\$15.5 billion in 2021. EMEA (Europe Middle East and Africa) accounts for US\$12.2 billion in 2016, or 33.2%, with an outlook of \$14.1 billion in 2021 thanks to a CAGR of 2.9%, ahead of the American continent, standing at US\$11.2 billion, equating to 30.5% of market share and 2.4% forecast growth per year to reach \$12.6 billion in 2021. As a comparison, the USA accounts for 17.2% (\$6.3 billion) and China 15.4% (\$5.7 billion) of the world market, with the latter displaying a forecast growth rate of 5.6% per year up until 2021.

63% of the packaging machinery market is taken up by food and beverage industries, the equivalent of US\$24.98 billion in 2016, expected to grow<sup>16</sup> by 6.6% per year.



Global packaging machinery market share, by end-user industry, 2016.



Source Allied market Research

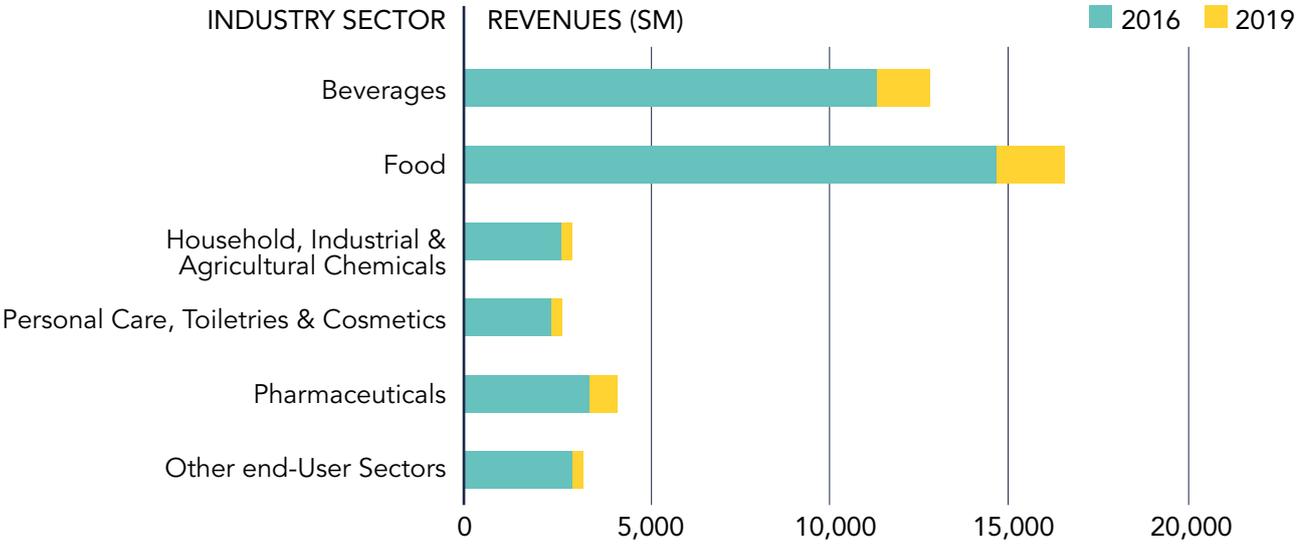
According to PMMI, the highest growth perspectives between now and 2021 can be found on the more concentrated pharmaceutical industry market (4.1%) and on the ever-innovative drinks market (2.8%).

<sup>14</sup> Source : IHS Markit pour PMMI

<sup>15</sup> Source : Allied Market Research

<sup>16</sup> Source : Allied market Research

## Revenues from packing machinery by user industry, in \$billion.



In 2016, filling and labelling machines accounted respectively for 20.7% of the worldwide market, or US\$7.6 billion, and 12.6% or US\$4.6 billion. The most optimistic outlooks relate to decorating and marking and coding machines with a CAGR of 3% and 3.1% respectively, just behind Form Fill Seal machines with 3.2% annual growth between now and 2021.



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